

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problems Mailbox.**

REMARKS

In the Office Action dated February 11, 2002, the Examiner issues several objections and rejections that are each addressed in detail below.

(1) Drawings:

The Examiner objects to the drawings as not showing every feature of the invention specified in the claims. Particularly, the Examiner indicates that the bottom section of the annular side wall does not appear tapered in the drawings as claimed. Enclosed is a proposed drawing correction to Figure 2 showing the change marked in red for the Examiner's approval.

(2) Specification:

The Examiner objects to the title of the invention as not indicative of the invention as claimed. Applicant herein proposes the amended title indicated above and requests the Examiner's approval thereof.

The Examiner further objects to the disclosure because the brief description of figure 5 erroneously indicates the view comes from figure 1 instead of figure 2. Applicant herein amends the brief description of figure 5 to accurately indicate the view comes from figure 2. Therefore, Applicants respectfully request that this objection be withdrawn.

(3) Claim Rejection – 35 U.S.C § 112:

The Examiner rejects claims 3-8 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner indicates that the scope of the claims is not clearly defined since a contradiction exists within the body of the claims of whether the subcombination of the closure only or the combination of the closure and the gasket is being claimed.

In response thereto, Applicant herein amends the preamble of claim 3. Particularly, Applicant deletes “plastic” from the preamble as non-essential description introducing the invention. Further, Applicant amends the preamble to specify that the closure is “capable of engagement with a gasket located between the closure and the container” so as to properly introduce the invention as the closure alone while also identifying the intended use of the invention. Therefore, Applicant respectfully asserts that claims 3 through 8 are no longer indefinite and respectfully requests that the §112 rejection be withdrawn.

(4) Claim Rejection – 35 U.S.C. § 102:

The Examiner rejects claims 1 and 2 under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 4,331,250 issued to Lever (hereinafter “the Lever patent”). Applicant herein deletes claims 1 and 2 therefore obviating the §102 rejection.

(4) Claim Rejection – 35 U.S.C. § 103:

The Examiner rejects claims 1-7 under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 2,906,429 issued to Marchyn (hereinafter “the Marchyn patent”) in view of U.S. Patent No. 1,842,226 issued to Williams (hereinafter “the Williams patent”). Applicants respectfully traverse this §103 rejection on its face and also amend claim 3 to further clarify the invention.

The present invention was developed to prevent leakage between the closure and the gasket due to part line flash or surface mismatch formed on the sealing surface during closure formation. The sharp edged surface created by the flash or mismatch is not an ideal sealing surface for the gasket and provides a potential leak path through the gland. The prior art attempts to prevent such leakage by providing a secondary machining operation to remove such

flash or mismatch so as to provide a smooth sealing surface. However, this additional step increases both the time and cost to manufacture such closures. Applicants' invention seeks to prevent such leakage by providing at least one annular sealing band passing through at least a portion of said part line flash or surface mismatch so that a secondary machining operation is not necessary to remove the flash or mismatch to improve the sealing effect of the gasket.

Initially, Applicants propose that neither the Williams nor the Marchyn patents in combination provide each an every limitation as claimed in amended claim 3. Specifically, neither the Williams nor the Marchyn patent disclose at least one annular sealing band passing through at least a portion of the part line flash or surface mismatch. Therefore, it would appear that claim 3 is distinguishable over the cited references. Further, and as described below, it would appear that the Marchyn patent does not provide support to combine the teachings of the Williams patent and therefore the combination is inappropriate.

The Marchyn patent does not disclosure such part line flash or surface mismatch. In fact, at col. 1, line 48, Marchyn explains the closure plugs with which the invention is concerned requires "an annular smooth surface on which the gasket seats." It is not clear whether the Marchyn closure originally includes part line flash or surface mismatch and later removes it by secondary machining operation. Therefore, on its face, Marchyn does not include, address, or attempt to overcome the problem of Applicant's invention.

It would appear based upon the lack of having or addressing the flash or mismatch surface problem, that there is no motivation in the Marchyn patent to combine the teachings of the Williams patent. In fact, to the contrary, it would appear that the Marchyn patent teaches away from utilizing the teachings of the Williams patent specifically in that the Marchyn patent requires "an annular smooth surface on which the gasket seats" as discussed above. Providing a

sealing band in the sealing surface of Marchyn would not further support the annular smooth surface desired.

Therefore, it does not appear that there is motivation in the principle reference that would make it obvious for one skilled in the art to amend the Marchyn closure based upon the Williams patent. Further, as amended, claim 3 now includes limitations not found in either the Williams nor Marchyn references. Thus, claim 3 now appears novel over the art and it is respectfully requested that the §103 rejection be withdrawn and claims 3 through 7 indicated as allowable.

(5) Claim Rejection – 35 U.S.C. § 103:

The Examiner rejects claims 1-8 under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 5,862,936 issued to Johanson (hereinafter “the Johanson patent”) in view of the Williams patent. Applicant would reiterate the above arguments with respect to the Marchyn patent as applicable to the Johanson patent. Particularly, Applicants propose that neither the Johanson nor the Williams patents in combination provide each an every limitation as claimed in amended claim 3, e.g. neither patent discloses at least one annular sealing band passing through at least a portion of the part line flash or surface mismatch. Therefore, it would appear that claim 3 is distinguishable over the cited references. Further, because the Johanson patent does not address or contemplate the flash or mismatch problem addressed by claim 3, motivation would appear to be absent therefrom to combine the teachings of the Williams patent with the teachings of the Johanson patent.

Therefore, it does not appear that there is motivation in the principle reference that would make it obvious for one skilled in the art to amend the Johanson closure based upon the Williams

patent. Therefore, as amended, claim 3 appears novel over the art and it is respectfully requested that the §103 rejection be withdrawn and claims 3 through 8 indicated as allowable.

Applicants also present new claims 9 through 14 for the Examiner's consideration.

Applicant has been careful not to include any "new matter" associated with these new claims.

Attached hereto is a marked-up version of the changes made to the claims by the present amendment. The attached page is captioned "Version with markings to show changes made."

In light of the foregoing, Applicant respectfully requests that the pending rejections be withdrawn.

Respectfully submitted,



Robert H. Earp, III
Reg. No. 41,004
McDonald, Hopkins, Burke & Haber Co., L.P.A.
2100 Bank One Center
600 Superior Avenue, E.
Cleveland, OH 44114-2653
(216) 430-2003

Date: 11-12-02

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE TITLE:

Please replace the original title with the following:

-- A Closure Having An Annular Sealing Band For Preventing Leakage Due to Part Line Flash or Surface Mismatch--.

IN THE SPECIFICATION:

In the Brief Description of the Drawings Section, please replace the description of Figure 5 with the following description:

Figure 5 is an enlarged side elevational view of the portion "5" of the closure in Figure [1] 2, showing the sealing bands.

IN THE CLAIMS:

Delete claims 1 and 2.

3. (Amended) A [plastic] closure for threaded engagement with a container[, the closure employing a gasket to provide a seal between the closure and the container] and capable of engagement with a gasket located between said closure and said container, the closure comprising:

a cap portion,

an annular side wall portion beneath the cap portion having part line flash or surface mismatch thereon [and having a smaller diameter than the cap portion], the annular side wall

portion comprising a top neck section, a threaded section beneath the top neck section, and a bottom section beneath the threaded section, and

a plurality of annular sealing bands situated around the top neck section of the annular side wall portion through at least a portion of said part line flash or surface mismatch, whereby as the closure is threaded within the container, the sealing bands releasably engage the gasket, thereby improving the effectiveness of the gasket and preventing leakage between said closure and said gasket due to said part line flash or surface mismatch.

Please add new claims 9 through 14 as follows:

9. (New) A closure capable of preventing leakage between a closure sealing surface having part line flash or surface mismatch thereon and a gasket, said closure comprising:

a cap portion;

an annular sealing surface extending below said cap portion and having part line flash or surface mismatch thereon; and

at least one annular sealing band extending radially outwardly from said annular sealing surface and through at least a portion of said part line flash or surface mismatch, so that said at least one sealing band engages the gasket so as to prevent leakage between said part line flash or surface mismatch and said gasket.

10. (New) The closure of claim 9 wherein said annular sealing band has a triangular cross-section so as to decrease the surface area at which the sealing band engages the gasket thereby increasing the engagement force between the sealing band and the gasket.

11. (New) The closure of claim 10 having a pair of annular sealing bands so as to prevent leakage between said part line flash or surface mismatch and said gasket.

12. (New) An improved closure for engagement with a container and capable of engagement with a gasket located between said closure and said container so as to prevent leakage between said closure and said gasket due to part line flash or surface mismatch on the sealing surface of said closure, said closure comprising:

an annular sealing surface having part line flash or surface mismatch; and

at least one annular sealing band extending radially outwardly from said annular sealing surface and capable of penetrating the gasket so as to improving the effectiveness of the gasket.

13. (New) A closure capable of engagement with a gasket for preventing leakage between a closure sealing surface having part line flash or surface mismatch thereon and the gasket, said closure comprising:

a cap portion;

an annular sealing surfaces extending below said cap portion and having part line flash or surface mismatch thereon;

an annular threaded section extending below said sealing surface for engagement with a container; and

a pair of annular sealing bands extending radially outwardly from said annular sealing surface and through at least a portion of said part line flash or surface mismatch, so that said at least one sealing band engages the gasket so at to prevent leakage between said part line flash or surface mismatch and said gasket.

14. (New) A closure for threaded engagement with a container and capable of engagement with a gasket located between said closure and said container so as to prevent leakage between said closure and said gasket due to part line flash or surface mismatch on the sealing surface of said closure, said closure comprising:

a cap portion;

an annular sealing surface extending below said cap portion and having part line flash or surface mismatch thereon;

an annular threaded section extending below said sealing surface for engagement with said container; and

at least one annular sealing band extending radially outwardly from said annular sealing surface so that when said closure is threaded within said container, said at least one sealing band engages the gasket thereby improving the effectiveness of the gasket.